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STATUS OF THE EUROPEAN CORN BORER IN 1944

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Distribution

Scouting to determine recent dispersion of the European corn borer was conducted during the 1944 season by a number of State entomological agencies and the Bureau of Entomology and Plant Quarantine. The corn borer was found in 1944 in Kansas, Nebraska, and Tennessee for the first time, and in a considerable number of counties outside the border of previously infested territory in Wisconsin, Minnesota, Iowa, Missouri, Kentucky, Virginia, and North Carolina. This new dispersion of the insect was most pronounced over the western third of Iowa and in southeastern Minnesota. Map 1 shows the known distribution of the corn borer in 1943 and the added area found infested in 1944, and the following list gives the counties in different States from which the pest was first reported in 1944.

1/ The information presented in this report was accumulated by the Bureau of Entomology and Plant Quarantine and the following State agencies; Indiana State Department of Conservation; State Departments of Agriculture of Maine, Minnesota, Missouri, New Jersey, New York, North Carolina, Pennsylvania, Tennessee, Vermont, Virginia, and Wisconsin; by the State Agricultural Experiment Stations of Connecticut, Delaware, Illinois, Iowa, Kansas, Kentucky, Missouri, Nebraska, New Hampshire, New York (Geneva), and Ohio; and by the Virginia Truck Experiment Station. The data were assembled and tabulated at the Lafayette, Ind., substation of the laboratory for European corn borer research, Toledo, Ohio, Wm. G. Bradley, in charge.

Iowa (31 counties)
Adair, Adams, Audubon, Boone, Buena Vista, Calhoun, Carroll, Cass, Clay, Crawford, Dallas, Decatur, Emmet, Greene, Guthrie, Harrison, Humboldt, Kossuth, Madison, Monona, Montgomery, Page, Palo Alto, Pocahontas, Pottawattamie, Ringgold, Sac, Shelby, Taylor, Union, Webster.

Kansas (1 county)
Wyandotte.

Kentucky (5 counties)
Butler, Lincoln, Logan, McLean, Muhlenberg.

Minnesota (16 counties)
Dakota, Dodge, Faribault, Fillmore, Freeborn, Goodhue, Le Sueur, Martin, Mower, Olmsted, Ramsey, Rice, Steele, Waseca, Wabasha, Winona.

Missouri (7 counties)
Andrew, Carroll, De Kalb, Franklin, Mississippi, Nodaway, Scott.

Nebraska (1 county)
Lancaster.

North Carolina (3 counties)
Bertie, Carteret, Pamlico.

Tennessee (3 counties)
Montgomery, Robertson, Sumner.

Virginia (5 counties)
Caroline, Chesterfield, Orange, Page, Prince George.

Wisconsin (6 counties)
Burnett, Douglas, Price, St. Croix, Vilas, Washburn.

Fall Abundance

The Bureau of Entomology and Plant Quarantine and Various interested States cooperating, as in previous years, conducted a survey in 1944 to determine the relative fall abundance of the European corn borer in 400 counties within 22 States infested by the insect in northeastern United States. In general, the survey procedures were the same as those used by the Bureau and State agencies during similar surveys in recent years. By this method 10 cornfields at random were sampled within each county, the percentage of plants infested being obtained by examining 25 consecutive corn plants taken at a given distance within a field from near the middle of its most accessible edge, and the number of borers per infested plant being determined by dissecting the first two plants found infested. Some of the State agencies sampled more fields per county or examined more stalks per field, or both. The product of the percentage of plants infested in a field and the average number of borers per infested plant provided a figure designated as the average number of borers per 100 plants. The borer population data for the individual fields were then used in the calculation of the county averages.

Table 1 presents a summary of the abundance data obtained for all counties and States in 1944 and gives comparable data for 1943. Table 2 shows the average number of borers per 100 plants for each county in the different States surveyed in 1944 and also includes all possible comparisons with similar data for 1943. It should be noted that a zero recorded for any county in table 2 indicates a borer population so low that no infested plants occurred within the specified count and does not necessarily mean the complete absence of the borer. The relative abundance of the borer in corn in portions of the infested area surveyed in 1944 is shown on map 2.

The average level of European corn borer abundance for 313 comparable counties surveyed in the United States decreased from 149.3 borers per 100 plants in the fall of 1943 to 81.4 in the fall of 1944 and was 72.7 borers per 100 plants for all 400 counties surveyed in 1944. However, the decrease was not common to all parts of the infested territory and the area surveyed in 1944 may be divided according to the general trends of corn borer abundance. In the eastern part of the Corn Belt (Indiana, Ohio, and Michigan) and in most other States east to the Atlantic coast, populations of the insect were generally lower in 1944 than in 1943, whereas farther west in the Corn Belt, especially in Illinois and Iowa, the borer was much more abundant in 1944 than in 1943.

In Indiana, where the average number of borers per 100 plants was 65.9 in 1944 as compared with 170.8 in 1943, almost two-thirds of the 78 counties surveyed showed significant reductions in populations of the corn borer from 1943 to 1944. In the other one-third of the counties, little or no change in borer abundance occurred in the same two years. Significant increases from 1943 to 1944 were found, however, in 4 counties in the southeastern corner of the State. Newton and Switzerland Counties, with 287 and 210.2 borers per 100 plants, respectively, were the most heavily infested counties in Indiana in 1944. Nineteen other counties, located mostly in the northwestern corner and in the eastern part of the State, had populations averaging between 101 and 200 borers per 100 plants.

About half of the 33 counties surveyed in the western part of Ohio maintained practically the same borer populations in 1944 as in 1943 while the remainder of this group of counties in the State showed a decrease over the same period. The average for western Ohio changed from 119.7 borers per 100 plants in 1943 to 55.8 in 1944, and populations as high as 101 to 200 borers per 100 plants occurred in only 4 counties in the State.

The status of the borer in Michigan was essentially the same in 1944 as in 1943, the 14 counties surveyed averaging 66 borers per 100 plants in 1943 and 64.7 in 1944. Gratiot County, Mich., with 119.6 borers per 100 plants, represented the highest infestation in the State in 1944.

The survey in 1944 of 17 representative counties in the infested part of Kentucky showed that the corn borer was generally present in small but measurable numbers, reaching a maximum of 51.4 borers per 100 plants in Fayette County.

In Pennsylvania and New York, numbers of the borers were definitely lower in 1944 than in 1943. In 28 Pennsylvania counties the average of 251.7 borers per 100 plants in 1943 was reduced to 73.3 in 1944, and in 20 counties in New York the average of 210.5 borers per 100 plants in 1943 compared with 126.3 in 1944. The extremely heavy concentrations of the pest found in southeastern Pennsylvania in 1943 moderated considerably in 1944 although the maximum abundance of the borer in the State still occurred in that section. Delaware County, with 397.6 borers per 100 plants, was the most heavily infested county in Pennsylvania in 1944. However, in 3 other counties in the southeastern corner of the State the mean numbers of the borers per 100 plants were between 201 and 300, and in 5 neighboring counties, they were between 101 and 200.

Despite the general borer reduction from 1943 to 1944 in New York, two of the highest county populations in the country were found in the counties of Nassau (western Long Island) and Columbia (Hudson River Valley) of this State, with 597.4 and 515 borers per 100 plants, respectively. Also, numbers of the insect ranged from 101 to 200 per 100 plants in 3 other counties of the Hudson River Valley and in Erie County in the western part of the State, and from 201 to 300 in 2 additional Valley counties. In the two Hudson Valley Counties of Columbia and Rensselaer, the 1944 populations of the corn borer represented significant increases from 1943.

A trend toward increased abundance of the corn borer from 1943 to 1944 was apparent across northern New England where, however, populations still remained relatively light. The increase was most pronounced in New Hampshire where the average of 11.4 borers per 100 plants in 1943 compared with 27.4 in 1944. Windham County in Vermont, with 148.8 borers per 100 plants, was the most heavily infested county in the States of Vermont, New Hampshire, and Maine, in 1944. In southern New England and more than half way down through the State of New Jersey, borer numbers were lower in 1944 than in 1943 and, with a few exceptions, the same situation prevailed farther southward in Delaware and in the eastern sections of Maryland, Virginia, and North Carolina. Three counties in southern New Jersey and Princess Anne County in Virginia had significantly higher borer populations in 1944 than in 1943. A number of individual counties in the Atlantic Coast States showed high populations of the corn borer in 1944. These counties and the average number of borers per 100 plants in each were as follows: Northampton, Va.,-743.4; Princess Anne, Va.,-601.8; Accomac, Va.,-505.8; Currituck, N. C.,-502.2; Burlington, N. J.,-431.8; Pasquotank, N. C.,-389.4; Plymouth, Mass.,-326.7; and Camden, N. J.,-325.4.

In Illinois, the average number of borers per 100 plants in 28 comparable counties increased from 80 in 1943 to 117.4 in 1944. The 1944 average for these 28 counties was identical with that for the total of 34 counties surveyed. County increases were most frequent in the northeastern quarter of the State and apparently borer populations were much higher in 1944 than in 1943 throughout the northern tier of Illinois counties, including Boone, Jo Daviess, and Winnebago, with 358.2, 289.8, and 252.2 borers per 100 plants, respectively. Boone County had the maximum infestation for any surveyed county in Illinois in 1944. Several counties in the western part of the State, along the Mississippi River, also had significantly greater numbers of borers in 1944 than in 1943 and populations in most of the surveyed counties showed a trend toward increase. In 7 of the 34 counties surveyed in 1944, the average number of borers per 100 plants ranged between 201 and 300, and in 10 of them the average varied from 101 to 200 borers per 100 plants.

In 20 comparable counties of eastern Iowa, the mean of 19.9 borers per 100 plants in 1943 increased to 55.3 in 1944. This increase apparently was characteristic of the trend in 1944 over most of the eastern half of the State and probably in more western counties where the presence of the insect in previously uninfested sections was easily detected in 1944. The corn borer was most abundant in Iowa in 1944 in Muscatine, Scott, Jones, and Jackson Counties, in which the number of borers per 100 plants averaged, respectively, 142.8, 111.6, 109.4, and 100. An average of 37.3 borers per 100 plants was found in all 40 counties surveyed in eastern Iowa in 1944.

Although the mean of the data from 9 comparable counties in eastern Wisconsin showed no significant change in borer abundance from 61.6 borers per 100 plants in 1943 to 59.8 in 1944, additional information gained during the 1944 survey and general knowledge of conditions in 1943 indicated a definite trend of borer increase over much of the southern half of the State first surveyed in 1944. The highest population in Wisconsin in 1944 occurred rather far north in Door County, with 140.6 borers per 100 plants, and each of 5 other counties in the State averaged from 101 to 200 borers per 100 plants. A total of 32 counties was surveyed in Wisconsin in 1944 and these averaged 54.1 borers per 100 plants.

For the first time measurable populations of the corn borer were found in Minnesota in 1944. These were in Houston and Fillmore Counties in the extreme southeastern corner of the State, which averaged 20 and 8.8 borers per 100 plants, respectively.

No appreciable change from 1943 to 1944 in the relatively low borer populations (less than 3 borers per 100 plants) in 8 counties of northeastern Missouri was indicated by the fall surveys. It is likely, however, that the new borer infestations found in 1944 in the better corn-growing sections of northwestern Missouri reflected an increasing abundance of the insect in the State as a whole.

A survey of corn borer abundance was not conducted in 1944 in the newly infested States of Kansas, Nebraska and Tennessee. The single-county infestations reported from each of the first two of these States represented isolated finds of the insect rather than the results of intensive planned scouting over any sizable portion of either State. In Robertson and Sumner Counties of Tennessee the borer was readily found in most cornfields selected as most likely to show infestation while in Montgomery County in that State, the borer was found in only one of the first 15 fields examined.

In general, moisture conditions for corn production in 1944 were more favorable in the western part of the Corn Belt than in the eastern portion or in the States east to the Atlantic coast, and to a considerable extent the area of increase in corn abundance in 1944 from 1943 coincided with that having the better seasonal environment for corn growth in 1944. Decreases in corn borer abundance from 1943 to 1944 were broadly related to drought or near-drought conditions occurring at critical periods in the seasonal development of the corn borer or its chief host plant corn, or both. According to the Weather Bureau, precipitation for the 3 summer months June-August, 1944, was below normal in most of the States east of the Mississippi River, the totals for the summer being less than 75 percent of normal in Indiana, Tennessee, Virginia, Maryland, Delaware, Pennsylvania, and New Jersey. Conditions of this type were probably responsible for holding the corn borer in check over a large area in 1944.

Summer Abundance in Early Sweet Corn

Limited surveys were conducted in the summer of 1944 to determine the relative abundance of the corn borer in early sweet corn grown for market purposes in several localities. As a rule, the fields surveyed were those most heavily infested within a given locality. A comparison of the 1944 data with similar figures for 1943 is given in table 3. In general the borer was less abundant in early sweet corn in 1944 than in 1943 altho considerable economic damage occurred to the crop in both years. In most places the injury caused by the borer in 1944 was supplemented by severe drought effects on the plants and consequent reduction of the yield and quality of the corn. The surveys showed that borer populations in sweet corn were appreciably lower in 1944 than in 1943 in the localities of New Haven, Conn., the Beverly District of New Jersey, St. Anne, Ill., and Toledo, Ohio, and the insect was apparently less numerous near Cincinnati, Ohio, in 1944. Little early sweet corn was planted in 1944 in the St. Anne, Ill., section and in the vicinity of Indianapolis, Ind. The infestation in Maine and east of St. Louis in Illinois remainted light. In western New York State borer populations in sweet corn were a little higher than in 1943, and in Muscatine County, Iowa, in 1944 the borer was becoming a factor in the raising of sweet corn.

Table 1.—Summary by States of European corn borer abundance in corn, fall of 1944, and comparisons with data for 1943

State	1944			Average borers per 100 plants		Significant change from 1943 to 1944
	Counties	Average borers per 100 plants	Comparable counties 1944 with 1943	1943	1944	
	Number	Number	Number	Number	Number	
Connecticut	5	178.7	3	811.5	178.7	Decrease
Delaware	3	76.5	3	244.7	76.5	"
Illinois	34	119.2	28	80.0	119.6	Increase
Indiana	78	65.9	78	170.8	65.9	Decrease
Iowa	40	37.3	20	19.9	55.3	Increase
Kentucky	17	12.1	0	-	-	-
Maine	14	15.1	14	12.0	15.1	None
Maryland	7	53.1	7	226.1	53.1	Decrease
Massachusetts	4	172.1	1	110.2	112.4	None
Michigan	14	64.7	14	66.0	64.7	"
Minnesota	2	14.4	0	-	-	-
Missouri	8	2.7	8	2.2	2.7	None
New Hampshire	9	27.4	9	11.4	27.4	Increase
New Jersey	19	143.0	19	246.7	143.0	Decrease
New York	20	126.3	20	210.5	126.3	"
North Carolina	3	392.5	3	259.0	392.5	None
Ohio	33	55.8	33	119.7	55.8	Decrease
Pennsylvania	28	73.3	28	251.7	73.3	"
Rhode Island	2	102.3	2	398.3	102.3	"
Vermont	10	38.3	10	24.9	38.3	None
Virginia	18	116.5	4	549.7	466.4	"
Wisconsin	32	54.1	9	61.6	59.8	"
Total	400	-	313	-	-	Decrease
Areal Av.	-	72.7	-	149.3	81.4	

Table 2.--European corn borer abundance in corn, fall of 1944, and comparisons with data for 1943

State and county	Average borers per 100 plants 1943	Average borers per 100 plants 1944
	Number	Number
Connecticut:		
Fairfield	-	177.4
Hartford	970.8	357.8
Litchfield	-	99.8
Middlesex	484.4	110.2
New Haven	979.2	68.0
Average:		
3 counties	811.5	178.7
5 counties	-	162.6
Delaware:		
Kent	248.0	35.7
New Castle	360.3	110.4
Sussex	125.9	83.3
Average:		
3 counties	244.7	76.5
Illinois:		
Adams	0.8	16.8
Boone	104.8	358.2
Brown-Cass	-	25.0
Bureau	169.4	180.2
Champaign	31.6	125.2
Christian	15.6	17.2
Clark	62.2	20.4
DeKalb	67.8	132.8
DuPage	64.8	182.0
Hancock	2.4	4.8
Henderson	28.0	32.4
Iroquois	215.8	240.8
Jasper	-	5.2
Jo Daviess	-	289.8
Kankakee	88.6	218.2
Knox	-	84.6
Lake	25.4	139.6
LaSalle	132.2	163.4
Lawrence	12.4	19.6
Livingston	79.0	230.0
Logan	59.0	42.4
Macon	35.8	37.0
McDonough	20.4	9.2
McLean	87.8	105.8
Mercer	61.2	149.0
Illinois(Cont'd):		
Moultrie	-	46.6
Ogle	215.8	239.8
Peoria	90.0	72.4
Sangamon	13.6	19.2
Vermilion	97.6	96.4
Whiteside	216.4	200.6
Will	89.2	113.4
Winnebago	-	252.2
Woodford	151.8	121.6
Average:		
28 counties	80.0	117.4
34 counties	-	117.4
Indiana:		
Adams	116.4	54.2
Allen	128.2	45.6
Bartholmew	31.0	105.4
Benton	371.8	149.2
Blackford	302.4	166.2
Boone	130.4	23.0
Brown	27.6	46.0
Carroll	229.8	32.4
Cass	197.0	36.8
Clay	19.8	23.0
Clinton	143.6	26.8
Daviess	25.4	8.6
Dearborn	47.2	49.2
Decatur	48.2	28.8
De Kalb	184.2	67.2
Delaware	151.6	91.6
Elkhart	312.6	74.0
Fayette	175.4	111.0
Fountain	144.0	65.2
Franklin	52.4	157.8
Fulton	541.4	48.0
Gibson	8.2	2.0
Grant	216.2	24.0
Greene	49.6	9.2
Hamilton	125.8	69.2
Hancock	144.8	29.8
Hendricks	79.4	11.8
Henry	191.4	103.6
Howard	311.6	36.2

Table 2.--European corn borer abundance in corn, fall of 1944, and comparisons with data for 1943 - Continued

State and county	Average borers per 100 plants: 1943	1944	State and county	Average borers per 100 plants: 1943	1944
	Number	Number		Number	Number
Indiana (Cont'd)			Indiana (Cont'd)		
Huntington	267.4	119.0	Warrick	11.4	10.8
Jasper	526.0	155.6	Warren	309.0	73.8
Jay	215.0	51.4	Wayne	176.2	83.6
Jefferson	28.4	16.6	Wells	320.6	104.0
Johnson	215.6	36.2	White	438.0	167.6
Knox	17.2	26.8	Whitley	253.6	101.8
Kosciusko	332.0	49.0			
Lagrange	173.8	112.6	Average:		
Lake	293.8	116.0	78 counties:	170.8	65.9
LaPorte	155.2	67.6			
Madison	179.4	68.2	Iowa:		
Marion	183.6	32.2	Allamakee	-	25.0
Marshall	215.4	134.4	Benton	-	25.4
Miami	337.8	19.0	Black Hawk	-	23.8
Montgomery	102.4	40.8	Bremer	-	14.4
Morgan	112.8	21.8	Buchanan	-	15.4
Newton	684.2	287.0	Butler	-	14.2
Noble	255.8	152.4	Cedar	12.4	88.8
Ohio	47.0	158.8	Chickasaw	-	11.4
Owen	16.6	8.6	Clayton	1.2	22.2
Parke	124.0	69.8	Clinton	114.0	83.8
Pike	8.4	0.8	Davis	-	5.2
Porter	273.6	56.2	Delaware	3.6	20.2
Posey	2.8	2.2	Des Moines	11.6	19.8
Pulaski	216.8	72.2	Dubuque	9.0	65.0
Putnam	62.8	30.4	Fayette	-	23.8
Randolph	153.2	44.0	Floyd	-	3.6
Ripley	15.8	20.6	Grundy	-	23.8
Rush	129.4	54.6	Henry	9.8	23.8
St. Joseph	271.6	102.2	Howard	-	13.6
Shelby	127.2	25.4	Iowa	-	38.0
Spencer	4.0	1.2	Jackson	53.8	100.0
Starke	273.2	115.8	Jasper	-	16.6
Steuben	202.6	40.8	Jefferson	2.4	10.8
Sullivan	47.2	16.8	Johnson	9.2	95.0
Switzerland	24.6	210.2	Jones	13.6	109.4
Tippecanoe	212.8	77.8	Keokuk	3.2	27.2
Tipton	382.6	12.4	Lee	5.2	11.8
Union	74.2	102.0	Linn	7.2	49.8
Vanderburgh	1.2	1.6	Louisa	5.2	90.6
Vermillion	140.6	60.8	Mahaska	-	19.2
Vigo	46.0	27.8	Marshall	-	18.0
Wabash	152.6	79.4	Muscatine	23.6	142.8

Table 2.—European corn borer abundance in corn, fall of 1944, and comparisons with data for 1943 - Continued

State and county	Average borers per 100 plants 1943	Average borers per 100 plants 1944	State and county	Average borers per 100 plants 1943	Average borers per 100 plants 1944
	Number	Number		Number	Number
Iowa (Cont'd)			Maine (Cont'd)		
Poweshiek	-	23.0	Oxford	4.6	22.0
Scott	98.2	111.6	Penobscot	15.2	9.9
Story	-	1.2	Piscataquis	13.0	8.0
Tama	-	29.4	Sagadahoc	16.5	5.9
Van Buren	0.4	4.2	Somerset	25.7	24.9
Wapello	3.6	8.8	Waldo	8.7	2.8
Washington	10.6	19.6	York	8.1	16.7
Winneshiek	-	42.2			
			Average:		
Average:			14 counties	12.0	15.1
20 counties	19.9	55.3			
40 counties	-	37.3	Maryland:		
			Carolina	79.4	5.8
Kentucky:			Dorchester	116.0	99.8
Anderson	-	3.2	Kent	212.4	50.6
Boone	-	15.8	Queen Anne	75.6	30.7
Boyle	-	25.6	Talbot	185.6	42.0
Daviess	-	3.8	Wicomico	175.4	94.6
Fayette	-	51.4	Worcester	738.4	48.2
Fleming	-	9.2			
Grayson	-	0	Average:		
Greenup	-	10.2	7 counties	226.1	53.1
Henderson	-	0.4			
Jefferson	-	23.0	Massachusetts:		
Madison	-	7.8	Bristol	-	84.0
Mason	-	20.8	Franklin	110.2	112.4
Nelson	-	0	Norfolk	-	165.4
Simpson	-	14.6	Plymouth	-	326.7
Trimble	-	15.4			
Union	-	0	Average:		
Warren	-	4.8	1 county	110.2	112.4
			4 counties	-	172.1
Average:					
17 counties	-	12.1	Michigan:		
			Allegan	84.8	57.4
Maine:			Berrien	90.8	74.2
Androscoggin	15.7	8.1	Gratiot	123.0	119.6
Cumberland	7.0	13.0	Huron	30.8	63.8
Franklin	4.5	11.0	Lenawee	154.0	90.0
Hancock	16.9	2.2	Macomb	79.2	59.4
Kennebec	5.7	39.5	Monroe	97.2	65.6
Knox	21.8	13.3	Ottawa	49.2	70.6
Lincoln	4.9	33.8	Saginaw	18.0	65.6

Table 2.—European corn borer abundance in corn, fall of 1944, and comparisons with data for 1943 - Continued

State and county	Average borers per 100 plants 1943	1944	State and county	Average borers per 100 plants 1943	1944
	Number	Number		Number	Number
Michigan (Cont'd)			New Jersey:		
St. Clair	21.2	6.8	Atlantic	17.8	92.4
Sanilac	12.8	40.2	Bergen	471.2	133.7
Tuscola	99.8	93.2	Burlington	395.8	431.8
Van Buren	17.6	37.2	Camden	212.5	325.4
Wayne	45.8	61.6	Cape May	35.0	83.4
			Cumberland	187.1	106.2
Average:			Essex-Union	359.0	92.0
14 counties	66.0	64.7	Gloucester	124.8	247.6
			Hunterdon	205.6	30.2
Minnesota:			Mercer	762.4	290.0
Fillmore	-	8.8	Middlesex	459.4	122.2
Houston	-	20.0	Monmouth	391.6	112.4
			Morris	270.0	48.2
Average:			Ocean	136.3	267.0
2 counties	-	14.4	Passaic	163.2	69.0
			Salem	121.4	137.4
Missouri:			Somerset	178.6	60.2
Clark	2.8	5.2	Sussex	81.6	24.6
Lewis	8.8	5.6	Warren	114.4	43.4
Lincoln	0	4.4			
Marion	3.2	4.6	Average;		
Pike	0	0.6	19 counties	246.7	143.0
Ralls	1.2	0.4			
St. Charles	0	0	New York:		
St. Louis	1.2	0.4	Albany	382.0	281.4
			Columbia	195.2	515.0
Average:			Dutchess	143.0	39.2
8 counties	2.2	2.7	Erie	51.0	101.6
			Greene	120.2	125.6
New Hampshire:			Livingston	3.6	8.0
Belknap	8.8	43.4	Monroe	8.2	5.6
Carroll	3.0	23.6	Nassau	1,782.0	597.4
Cheshire	17.4	9.4	Niagara	104.2	5.2
Grafton	18.2	30.8	Oneida	2.6	31.6
Hillsboro	7.2	26.4	Onondago	43.4	72.6
Merrimack	9.8	30.0	Ontario	11.4	4.8
Rockingham	23.8	24.4	Orange	132.4	34.4
Strafford	8.0	51.4	Orleans	41.0	1.2
Sullivan	6.4	7.4	Rensselaer	70.0	177.2
			Saratoga	179.6	94.0
Average:			Schenectady	124.2	220.2
9 counties	11.4	27.4	Suffolk	753.6	91.2

Table 2.—European corn borer abundance in corn, fall of 1944, and comparisons with data for 1943 – Continued

State and county	Average borers per 100 plants 1943	Average borers per 100 plants 1944
	Number	Number
New York(Cont'd)		
Ulster	256.2	105.6
Wayne	16.6	14.2
Average:		
20 counties	221.0	126.3
North Carolina:		
Camden	121.4	286.0
Currituck	531.2	502.2
Pasquotank	124.4	389.4
Average:		
3 counties	259.0	392.5
Ohio:		
Allen	113.8	62.6
Auglaize	96.8	25.8
Butler	136.6	41.2
Champaign	248.2	150.0
Clark	178.0	99.6
Clinton	95.0	19.2
Darke	70.8	47.8
Defiance	50.8	22.8
Fayette	104.2	41.6
Franklin	196.0	53.8
Fulton	54.2	76.0
Greene	146.2	102.0
Hamilton	77.4	45.8
Hancock	95.8	54.6
Hardin	119.6	48.4
Henry	144.2	31.6
Logan	111.8	47.6
Lucas	85.6	29.8
Madison	270.4	69.0
Mercer	112.6	57.2
Miami	305.4	25.2
Montgomery	112.8	48.0
Ottawa	37.2	21.0
Paulding	30.8	32.2
Pickaway	144.4	91.4
Preble	85.2	40.0
Putnam	90.2	106.4
Sandusky	159.2	62.8
Shelby	104.6	49.8
Van Wert	125.2	169.6
Ohio (Cont'd)		
Warren	109.8	37.6
Williams	32.6	11.8
Wood	104.8	18.6
Average:		
33 counties	119.7	55.8
Pennsylvania		
Adams	66.2	3.7
Armstrong	5.6	7.0
Berks	418.8	102.8
Bucks	1,364.4	201.8
Butler	8.0	1.5
Centre	26.2	6.8
Chester	936.2	279.7
Crawford	56.6	16.8
Cumberland	58.0	12.6
Dauphin	100.4	29.9
Delaware	1,267.0	397.6
Erie	292.8	30.5
Franklin	11.6	2.2
Indiana	8.4	2.4
Juniata	15.2	17.7
Lancaster	438.4	103.8
Lawrence	2.3	5.6
Lebanon	100.0	38.4
Lehigh	227.8	136.9
Luzerne	131.6	20.5
Lycoming	14.2	19.3
Mercer	48.3	18.8
Montgomery	998.4	293.0
Northampton	262.8	144.6
Perry	29.6	30.9
Union	33.6	11.1
Westmoreland	0	0.1
York	125.5	117.2
Average:		
28 counties	251.7	73.3
Rhode Island:		
Bristol-Newport	498.4	145.6
Washington	298.2	59.0
Average:		
2 counties	398.3	102.3

Table 2.--European corn borer abundance in corn, fall of 1944, and comparisons with data for 1943 - Continued

State and county	Average borers per 100 plants 1943	1944	State and county	Average borers per 100 plants 1943	1944
	Number	Number		Number	Number
Vermont:			Wisconsin:		
Addison	3.8	21.2	Brown	-	58.2
Bennington	43.3	20.0	Calumet	60.6	56.6
Chittenden	19.4	16.2	Columbia	-	12.0
Franklin	11.6	10.4	Dane	-	21.5
Grand Isle	12.0	21.4	Dodge	15.0	18.0
Orange	13.8	15.4	Door	-	140.6
Rutland	27.4	22.6	Fond du Lac	88.0	102.8
Washington	17.4	33.4	Grant	-	23.2
Windham	70.0	148.8	Green	-	62.6
Windsor	29.8	73.2	Iowa	-	9.7
			Jefferson	-	31.3
Average:			Kenosha	-	130.9
10 counties	24.9	38.3	Kewaunee	-	102.0
			La Crosse	-	13.3
Virginia:			Lafayette	-	59.8
Accomac	569.0	505.8	Manitowoc	37.0	65.2
Charles City	-	0.8	Marinette	-	31.6
Culpeper	-	0.8	Milwaukee	-	54.8
Fairfax	-	25.6	Oconto	-	7.7
Fauquier	-	0.8	Outagamie	74.6	79.8
Gloucester	-	11.2	Ozaukee	141.4	19.6
Hanover	-	2.4	Racine	-	118.9
Henrico	-	0	Rock	-	107.3
King and Queen	-	3.6	Sauk	-	9.8
King William	-	5.8	Shawano	-	75.3
Loudoun	-	133.0	Sheboygan	92.2	83.0
New Kent	-	9.8	Vernon	-	12.4
Norfolk	34.4	14.6	Walworth	-	35.8
Northampton	1,389.0	743.4	Washington	32.0	89.4
Prince William	-	7.8	Waukesha	-	44.0
Princess Anne	206.4	601.8	Waupaca	-	29.3
Warwick	-	4.6	Winnebago	13.8	23.6
Westmoreland	-	25.6			
			Average:		
Average:			9 counties	61.6	59.8
4 counties	549.7	466.4	32 counties	-	54.1
18 counties	-	116.5			

Table 3.—European corn borer abundance in early sweet corn, summers of 1943 and 1944 1/

State and county	Locality	1943 Fields	1943 Average borers per plant	1944 Fields	1944 Average borers per plant
		Number	Number	Number	Number
Connecticut:					
New Haven	New Haven	15	9.5	20	7.4
Illinois:					
Kankakee	St. Anne	4	38.3	1	23.0
Madison and St. Clair	St. Louis	10	0.1	10	0.2
Indiana:					
Marion	Indianapolis	-	-	1	2.4
Iowa:					
Muscatine	Muscatine	-	-	5	5.9
Maine:					
Cumberland	-	20	0.1	20	0.2
York	-	20	0.6	20	0.3
New Jersey:					
Burlington	Beverly	20	9.9	20	6.9
New York:					
Erie	Eden	-	-	8	4.1
Monroe	Rochester	11	0.8	10	2.3
Onondaga	Syracuse	10	2.8	10	4.0
Ohio:					
Lucas	Toledo	6	36.3	20	10.0
Hamilton	Cincinnati	-	-	7	12.7

1/ New York data supplied by the Agricultural Experiment Station, Geneva, N. Y.; Maine data by the Maine State Department of Agriculture; and data from Hamilton County, Ohio, procured in cooperation with the Ohio Agricultural Experiment Station.